1 2 3 4 5	Paul W. Conable, OSB #975368, pro hac vice admission to be sought paul.conable@tonkon.com Michael C. Willes, SBN 273145 michael.willes@tonkon.com TONKON TORP LLP 888 SW Fifth Avenue, Suite 1600 Portland, OR 97204-2099 Phone: 503.221.1440 Fax: 503.274.8779			
6	Attorneys for Apex Directional Drilling, LLC			
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8	UNITED STATES DISTRICT COURT			
9	FOR THE NORTHERN DISTRICT OF CALIFORNIA			
10	EUREKA DIVISION			
11	APEX DIRECTIONAL DRILLING, LLC, an	Case No. 15-cv-02501		
12	Oregon limited liability company authorized to do business in the State of California,	COMPLAINT FOR BREACH OF		
13	Plaintiff,	PROFESSIONAL DUTY, NEGLIGENT MISREPRESENTATION, AND TORT		
14	v.	OF ANOTHER		
15 16	JURY TRIAL DEMANDED SHN CONSULTING ENGINEERS & GEOLOGISTS, INC., a California corporation,			
17	Defendant.			
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19	Plaintiff Apex Directional Drilling, LLC alleges as follows:			
20	THE PARTIES			
21	Plaintiff Apex Directional Drilli	ng, LLC is, and at all times herein mentioned		
22	was, an Oregon limited liability company with its principal place of business at 8850 SE 76th			
23	Drive, Portland, Oregon, duly authorized to engage in business in the State of California.			
24	2. Defendant SHN Consulting Eng	ineers & Geologists, Inc. is, and at all times		
25	herein mentioned was, a California corporation with its principal place of business at 812 West			
26	Wabash Avenue, Eureka, California.			
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JURISDICTION 1 2 3. This is an action between citizens of different states. The amount in controversy, exclusive of costs, exceeds \$75,000. Therefore, this Court has jurisdiction of this action under 3 4 28 U.S.C. § 1332. 5 **VENUE** 4. Venue is proper in this district under 28 U.S.C. § 1391(b)(2) because the events 6 giving rise to Plaintiff's claims occurred in Humboldt County. 7 **INTRADISTRICT ASSIGNMENT** 8 5. 9 Civil L.R. 3-2(c) and (f) provide the basis for assignment of this action because the events giving rise to Plaintiff's claims occurred in Humboldt County. 10 STATEMENT OF FACTS AND CLAIMS 11 The City of Eureka's Sewer Project 12 13 6. Plaintiff is a leader in the business of horizontal directional drilling ("HDD"). 14 HDD is a steerable underground boring system for the installation of pipes, conduit, or cable in a shallow arc using a surface-based drilling rig. It is a cost-effective and environmentally 15 preferable alternative to surface trenching. Plaintiff is an expert in HDD and one of the leading 16 17 HDD contractors in the nation. 7. The City of Eureka, California (the "City") undertook a multimillion dollar public 18 19 works project to improve a major wastewater pipeline connection for treatment of its municipal 20 sewage. Because of its scale and years-long construction period, the City's sewer improvement 21 project was divided into discrete sections, each requiring an individual bidding process. The part 22 of the project at issue here is known as the Martin Slough Force Main Drill Project, Bid 23 No. 2013-26 (the "Project"). 24 8. The Project called for the use of HDD to bore a forty-two-inch diameter tunnel for 25 installation of a high-density polyethylene ("HDPE") sewer pipe, twenty-six inches in diameter, 26 over 4000 feet in length. The pipe would ultimately extend in a general east-west direction 27 through un upland area called Pine Hill, connecting the Martin Slough sewer project on the east

side of Pine Hill to its west side, from where it would run under Highway 101 and into the City's sewage treatment plant. In places, the bore path/tunnel is more than 145 feet below the surface.

9. The City hired Defendant to use its purported "regional" expertise in "water and wastewater system design" to prepare geological studies of the Project site and the surrounding areas and to draft the Project plans.

The Geotechnical Baseline Report

- 10. On or about April 19, 2013, the City requested bids from contractors who were interested in performing work on the Project. As part of informing potential bidders about the Project, the City presented information about its scope, design specifications, and anticipated soil conditions. This information was the fundamental basis and the key representation upon which potential bidders, including Plaintiff, relied.
- 11. Specifically, the City disseminated to Plaintiff and other potential bidders technical drawings depicting the proposed bore profile, geographic features, and certain technical details of the HDD work to be performed on the Project, such as the angle that the bore should take and the manner of preparing entry and exit points. Defendant prepared these technical drawings. They bear Defendant's logo as well as the signed approval of Defendant's representative, Brian Freeman.
- 12. The City also disseminated to Plaintiff and other potential bidders contract documents (the "Contract"), which included bidding procedures, a form of contract to be entered into with the City, general and special provisions for conducting the HDD work on the Project, and a document entitled "Geotechnical Baseline Report" ("the GBR"). A true and correct copy of the final, executed Contract, including the GBR, is attached to this Complaint as Exhibit A and is made a part hereof by reference.
 - 13. The GBR states, in part, that it

is an informational document that is intended to be part of the construction bid package, where it will establish baseline conditions. The primary purpose providing baseline conditions information is to reduce uncertainty about geotechnical conditions to the extent possible, promote competitive bidding, and establish a clear basis for resolving differing site conditions.

. . .

The intent of the baseline information presented herein is to provide Contractors with a clear explanation of the geologic and geotechnical conditions relative to the proposed project, so that key geotechnical constraints and requirements that must be addressed by the Contractor during bid preparation and construction are well-defined.

Ex. A at 132.

- 14. Again, the Contract bears Defendant's logo as well as the signed approval of Defendant's representative, Freeman. Based on these and other representations, Plaintiff alleges that Defendant prepared the technical drawings and the Contract, including the GBR. In preparing the Contract, including the GBR, Defendant knew and intended that bidders, such as Plaintiff, would rely on its contents when evaluating whether to bid on the Project and how to estimate the necessary inputs for completing the work under the conditions presented.
- 15. During the bidding and work stages, the City was represented by Defendant, which served as lead engineer on the Project. Defendant represented that it had provided engineering and geological services on numerous public-works projects in and around the area of the City that involved subsurface drilling or excavation. The geologist on the Project was Roland Johnson, an employee of Defendant at the time. Johnson represented to Plaintiff during the pre-bid period that he had "decades" of experience studying and working in the geological conditions in and around the Project site.
- 16. One critical factor in HDD work generally is the subsurface conditions in which the drilling will occur. In order for HDD to be feasible for a project of this scope, the soil must be "competent" and "stable." These are soils that are not prone to further settlement or collapse. Wet, sandy or muddy conditions are neither competent nor stable. If the subsurface conditions do not feature competent and stable soil, a project of this scope will be challenging and risky, or perhaps even impossible.
- 17. Soil competency and stability were especially important in this Project for three reasons: (1) the length of the bore, (2) the appropriate equipment to perform the HDD work, and (3) the complexity of the designed bore profile.

- 18. First, the nearly mile-long bore was unusually long for projects which incorporate pipe made from HDPE, rather than steel. HDPE, a form of plastic, is not as strong as steel and is therefore more vulnerable to failure during the process of pulling the pipe back through the bore hole where soil conditions have compromised the integrity of the tunnel walls. The HDPE pipe is akin to a large plastic hose, and if the tunnel walls have collapsed, the HDPE may simply break apart when stressed by soil resistance in the pullback process.
- 19. Second, due to the length, diameter, and weight of the nearly mile-long HDPE pipe, large, heavy and very powerful HDD equipment is used. This equipment includes a large 500,000-pound capacity drill rig; a drill stem (each of the over 140 thirty-foot segments required for this Project weighs nearly 900 pounds); tooling, consisting of a drill "bit," motor to run the drill bit, steering system tools, and housing (these tooling components weigh up to 8000 pounds); and the reamers used to expand the bore hole once the initial bore is completed (these weigh up to 3500 pounds each). It was imperative that Plaintiff receive accurate soil information so that it could assure that Defendant, as Project engineer, would approve use of the appropriate techniques and materials for the conditions.
- 20. Third, the shape of the bore as designed had a significant curve plus vertical contour up and down, making it very complicated. In order to control an underground drill and steer it around a curve, it is essential that the soil formation be stable and dense enough to provide resistance to the drill tooling to provide for good steering response. Because of the limited layout provided for the Project at the bore exit point, it was critical to adhere to the bore profile, which in turn required stable and competent soils to permit accurate steering.
- 21. In the GBR, Defendant informed bidders, including Plaintiff, that for the majority of the length of the Project, the soils in which the work would be performed would be stable and competent "Hookton formation" soils. The GBR characterized the Hookton formation soils as stable and well-suited to HDD work. This was critical to Plaintiff because HDD operations for this job require "competent" soil, such as are found in the Hookton formation, meaning soil that has sufficient stability and density to enable the drilling equipment to be controlled and steered, and for the resulting bore hole to remain intact and not collapse. The

GBR and its authoritative description of the soil formation through which the HDD work would be performed was a material inducement to Plaintiff's decision to bid on the Project. Plaintiff would not have bid on the Project if it had known the true soil conditions.

- 22. The GBR also contained results and data from only a single relevant test bore hole which, according to Defendant, showed "hard drilling" and "high blow" counts, critical information that indicates stable soil conditions. The GBR directed contractors' attention to the evidence of subsurface conditions indicated by this bore. In fact, this single bore sample, referred to as the Meyers-1 bore, was actually located a significant distance from the actual HDD bore path and reached a depth of only 121.5 feet.
- 23. An engineer using the same skill, prudence, and diligence as other members of the engineering profession commonly possess and exercise would not rely on such limited data to design and carry out the HDD work on the Project.
- 24. On or about May 6, 2013, Defendant and the City held a mandatory pre-bid meeting for all prospective bidders at Defendant's offices. Plaintiff attended this meeting. There Representatives of Defendant and the City reviewed various portions of the Contract and fielded questions about the Project. To confirm that the GBR accurately reflected actual Project soil conditions, Plaintiff asked Defendant if soils in the Project path were competent and stable. Defendant assured Plaintiff that the Project soils were stable and competent Hookton formation soils.
- 25. During or immediately following the pre-bid meeting, Johnson in fact identified for Plaintiff's employees, including Sean Hogan, senior director of HDD operations and technical support, precisely where the stable and competent Hookton formation soil was on a profile-view diagram of the Project area. A true and correct copy of this diagram is attached to this Complaint as Exhibit B and is made a part hereof by reference. Johnson's representations corroborated Defendant's other representations that for the majority of the length of the Project, the soils in which the work would be performed would be stable and competent soils.
- 26. Also on the day of the mandatory pre-bid meeting, Defendant invited prospective bidders to participate in a guided "field walk" of the Project site. Plaintiff's representatives

accepted this invitation. Defendant's representative spent considerable time walking the length of the surface above the prescribed Project bore profile and informing prospective bidders about the soil composition. Consistent with the GBR's instruction that bidders should rely on "surface conditions observed during site visits as the basis for bids," Defendant's representative identified Hookton formation soils exposed at ridges and other outcroppings to evidence that stable and competent drilling conditions would be found throughout the majority of the designed bore. The soils exhibited to plaintiff would have provided good conditions for the HDD work.

27. Plaintiff reasonably relied on Defendant's representations in the GBR, including the promise that a contract adjustment was available in the event of differing soil conditions, and on Johnson's assurances of stable and competent Hookton formation, in deciding to bid on the Project.

The Contract Is Awarded to Plaintiff and Work Commences

- 28. On or about May 24, 2013, Plaintiff submitted its bid for \$3,658,332.30.
- 29. Plaintiff was the lowest qualified bidder, and effective on or about July 24, 2013, the City and Plaintiff executed the Contract.
- 30. Defendant was the engineer on the Project, meaning that it had supervisory responsibility over the design, preparation, and execution of work to be performed under the Contract.
- 31. By letter dated July 24, 2013, the City gave Plaintiff notice to proceed under the Contract, directing Plaintiff to commence work on the Project. Thereafter, Plaintiff in all respects attempted to comply with the conditions and provisions of the Contract and began HDD operations on the east side of the Pine Hill uplands, heading generally in a westerly direction, all as directed in the Project specifications provided by Defendant and the City and as supervised and directed by Defendant. Defendant's representatives were on the construction site daily and directed and approved each and every step of Plaintiff's efforts on the Project.

Plaintiff Encounters Unstable Soil Conditions from the Outset

32. In the original Project work plan, the City's bore path design called for an initial drilling angle of 1.4 degrees. For many reasons, this plan was not feasible. First, the design

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- would require use of outdated and obsolete drilling technology. Modern drill rigs are not designed to initiate a 1.4 degree angle, which is too slight for successful drilling techniques. Second, the design specified placement of the drill rig in a submerged position below the ground water level in an area that often flooded, creating concerns about both water damage to the expensive drilling equipment and environmental contamination. Third, the original design did not provide for enough "cover," as it was too shallow and was highly likely to result in hydraulic fractures which could leak drilling fluids into the environmentally sensitive wetlands area.
- 33. Because Defendant's bore path design was not feasible, Plaintiff proposed a more realistic, steeper drilling path at a seven-degree angle, along with an entry point repositioned forward by approximately 100 feet. The redesigned, steeper entry angle would, assuming the representations made by Defendant in the GBR were accurate, logically get the bore into the stable, competent Hookton soils sooner. The City and Defendant approved this design revision and all associated submittals.
- 34. Based on Defendant's GBR, Plaintiff expected to begin drilling the bore in a shallow, near-surface layer of marine estuarine deposits, which are wet, organic materials (bay mud), in which steering the drill is impossible. The original Project plans called for driving steel casing from the bore entrance, at the original design angle of 1.4 degrees, for a distance of approximately 285 feet. The steel casing protects the drill rig and allows drilling in unstable soil by providing a hard barrier around the bore path to prevent the tunnel walls from collapsing. According to Defendant and the GBR, after proceeding for approximately 285 feet at an angle of 1.4 degrees, the bore would be in stable and competent soils, and therefore no further casing would be required. With the revised drilling angle of seven degrees, along with repositioning the entry point forward approximately 100 feet, the bore would achieve greater depth sooner, and, if Defendant was correct, would be in the predicted stable and competent soils even sooner, thus allowing the casing to be shorter.
- 35. On or about September 16, 2013, initial casing installation work commenced. Plaintiff discovered that the extent of the surface marine estuarine layer of wet, organic material (bay mud) went far deeper than was predicted by the definitive data set forth in the GBR and

Johnson. As work progressed over several days, it became clear to everyone that the Project bore profile was not in stable, competent Hookton formation soils at all. In fact, contrary to Defendant's representations, Plaintiff found that it was drilling in bay mud and then in flowing sands that held significant amounts of water.

Defendant Directs Plaintiff to Continue Casing Installation

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- 36. After installing approximately 200 feet of casing at the bore entrance, Plaintiff was still encountering unsuitable soil conditions that were not competent or stable and had still not hit the stable and competent Hookton soils described in the GBR and repeatedly promised by Defendant and Johnson.
- 37. Defendant, with complete awareness of the physical evidence reflecting the nonconforming soil conditions, directed Plaintiff to drive the casing even further and deeper, in the stated hope that the operation would soon encounter stable and competent Hookton formation soils.
- 38. On or about October 8, 2013, and after driving approximately 259 feet of casing, Plaintiff informed Defendant that if the casing went any deeper, Plaintiff would not be able to follow the bore path specified in the Project design. Johnson maintained a daily log while he worked on the Project. His October 8, 2013 entry hypothesizes that, despite physical evidence retrieved from auger retrievals, "if theoretically correct the casing is well past the contact." (The point at which casing intersects with stable and competent soil is called the contact, and the actual process of intersecting with the contact is known as meeting refusal.) Defendant told Plaintiff to proceed.
- 39. Johnson's October 9, 2013 daily log entry states that "small bits of 'ordinary' (8-15%[]) Hookton were on auger bit." His notes from that date also recognize the "very high" risks of drilling in the saturated sandy soils that the casing installation ejected to the surface.
- 40. On or about October 10, 2013, and after approximately 280 feet of casing had been installed, Plaintiff had still not hit the stable and competent Hookton soils promised in the GBR and by Defendant, despite driving casing deeper than the original design, per Defendant's instructions. Nevertheless, Defendant, the Project engineer, directed Plaintiff to stop installing

the casing and claimed that the bore had reached the anticipated stable and competent Hookton soils. Johnson's daily log entry for October 10, 2013, states that "clearly competent Hookton" is present. Defendant gave this direction with full knowledge that the soil conditions Plaintiff was still encountering did not match the conditions specified in the GBR. Plaintiff followed the directions of Defendant, as required by the Contract documents, which vest final authority in the Project engineer as to the acceptability of "work performed" and "as to the manner of performance" of the work.

41. At a meeting held on or about October 11, 2013, Plaintiff and Defendant discussed the transition from casing installation to drilling directly in the soil, known as "pilot boring," should take place. Plaintiff continued to express concerns that the casing had not actually met stable competent soil (also called "refusal"). Defendant's employee, William McGoldrick, captured in his notes how Johnson overruled Plaintiff's requests for additional time to analyze the feasibility of pilot boring, because in Johnson's opinion the "casing is well placed into Hookton formation" and "there does not appear to be justification for driving more casing."

<u>Plaintiff Continues to Encounter Unstable Soils While Drilling Pilot Bore</u>

- 42. Plaintiff accepted Defendant's instructions, converting the casing operations to HDD drilling equipment so the pilot bore could begin. But when Plaintiff pushed the drill tooling beyond the protective casing, it simply sank into the unstable, flowing sand.
- 43. Johnson's statements that the casing was in Hookton soils were wrong. To compensate, Defendant ordered Plaintiff to pump grout and other material into the bore hole in order to provide a stable material through which the drill could pass without sinking deeper into the flowing sand. Ordering and approving of this course of action was an acknowledgement of the non-competent soils that Plaintiff was encountering. However, when the City and Defendant were presented with a change order for this additional work caused by the differing soil conditions, the change order was denied based on Defendant's recommendation.
- 44. The grout provided a stable medium for only a short distance, and Plaintiff's bore went deeper than anticipated as the drill tooling again sank into the loose, wet soil. This

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deviation required a revised bore path. The City and Defendant were aware of these revisions and approved them before Plaintiff continued with its boring operations.

- 45. Plaintiff promptly and repeatedly informed the City and Defendant that the conditions onsite were not as had been represented. Plaintiff also directed Defendant to inspect materials discharged to the surface as the pilot bore advanced. Soil conditions were also recorded in the Project's daily drilling logs, which plainly showed that the material encountered in the bore was flowing sand, not stable, competent Hookton soils. The non-conforming soil conditions were also independently confirmed and documented in soil analysis reports that were performed several times per day by independent third parties. Defendant was provided these analyses daily, as required by the Contract. Additionally, these conditions were discussed repeatedly, on at least a daily basis, with Defendant's employees, including McGoldrick and Johnson, as the flowing sands encountered were making it nearly impossible to steer the drill steel within the intended bore path. (Plaintiff would provide formal written notice of the differing site conditions on January 16, 2014 as a matter of formality, but the City and Defendant had been repeatedly made aware of the actual site conditions being encountered from the very beginning of HDD operations, including in numerous other written communications, meetings and construction site visits.)
- 46. Defendant was apprised of and observed the non-conforming soil conditions on a continual basis at the Project site. It was also provided with, and had access to, daily logs maintained by Plaintiff's HDD operators and other personnel, including the independent fluids engineers, the independent steering and control engineers, and the drill rig operators, which contemporaneously detailed the conditions Plaintiff was encountering.
- 47. The non-conforming soil conditions also caused Plaintiff other significant and expensive problems in attempting to follow the daily directions of Defendant's engineers.

 Among other things, Plaintiff encountered excessive volumes of groundwater, far more than anticipated by the Contract. Management of excess groundwater increased actual Project costs. It also created muddy conditions and standing water in the entry pit, further increasing costs; but

the City, relying on Defendant's analysis and recommendation, denied Plaintiff's claims for reimbursement for those costs.

- 48. As Plaintiff continued drilling the pilot bore, the flowing underground sand caused the initial conventional drill tooling to break off from the drill stem and become lost. Not only did Plaintiff have to replace expensive drill components, it also incurred the substantial cost of obtaining this equipment on an emergency basis. Because the unstable soil made it impossible for Plaintiff to steer the bore along the original bore profile with conventional tooling, Plaintiff, at the direction of Defendant, tried different and lighter tooling on multiple occasions to address the unexpected soil conditions.
- 49. Plaintiff attempted various alternative techniques at Defendant's direction to address the non-conforming soil conditions and excess groundwater, such as pumping grout at the termination of the initial casing and changing bentonite solutions in drilling fluids to create greater hole stability, but the City subsequently rejected a change order to authorize the additional costs incurred. The City also eventually rejected Plaintiff's billing for the excess groundwater, even though the Contract provided a line item specifically for these additional costs. As the Project engineer, Defendant performed the analyses and made the recommendations City relied upon to reject Plaintiff's requests. Against all evidence and continued warnings to the contrary, Defendant continued to falsely insist that the drill path was in stable, competent soils.
- 50. On or about January 11, 2014, as the drill steel neared the western end of the Project, Plaintiff called an onsite meeting attended by representatives of Plaintiff, the City, and Defendant, including Johnson and McGoldrick. There, Plaintiff's senior director of HDD operations and technical support, Hogan, explained that the unstable soil conditions would not allow the drill steel to achieve the necessary exit trajectory. Hogan said that, according to Plaintiff's calculations, the actual exit point would be approximately 100 feet west of the planned location. Defendant and the City instructed Plaintiff to continue drilling.
- 51. On or about January 13, 2014, Plaintiff in fact concluded the pilot bore where Hogan had predicted. At a meeting held that day, attended by representatives from the City and

Plaintiff hereby incorporates each and every allegation of paragraphs 1 through 56

above.

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1	58. As the engineer on the Project, Defendant owed a duty to Plaintiff to use such		
2	skill, prudence, and diligence as other members of the engineering profession commonly possess		
3	and exercise. In preparing the GBR and advising Plaintiffs on their work on the Project,		
4	Defendant knew that Plaintiff was relying on and depending on Defendant's expertise and		
5	advice.		
6	59. Defendant breached that duty to Plaintiff by:		
7	 negligently preparing the GBR and technical drawings; 		
8	• advising Plaintiff that for the majority of the length of the Project, the soils in		
9	which the work would be performed would be stable and competent soils,		
10	when in fact they were not;		
11	 relying on inadequate data to design and advise on the Project; 		
12	 refusing to acknowledge, despite all the evidence to the contrary, that the 		
13	subsurface conditions were not competent and stable Hookton formation;		
14	 ordering Plaintiff to stop installing the casing and to transition to pilot boring 		
15	despite the clear evidence that the soil conditions were not stable; and		
16	 advising the City to deny Plaintiff's requested change orders. 		
17	60. As a reasonably foreseeable result of the breaches alleged above, Plaintiff has		
18	sustained damages in an amount to be proven at trial, but not less than \$2,100,000.		
19	SECOND CLAIM FOR RELIEF		
20	(Negligent Misrepresentation)		
21	61. Plaintiff incorporates the allegations of paragraphs 1 through 60 above.		
22	62. Defendant informed Plaintiff that, for the majority of the length of the Project, the		
23	work would be performed in stable and competent Hookton formation soils.		
24	63. After Plaintiff was awarded the Contract and began working on the Project,		
25	Defendant maintained that the soil conditions were as it had represented, despite mounting		
26	evidence to the contrary.		
27	64. Defendant was without reasonable grounds for believing its representations in the		
28	GBR and on the Project site to be true. Defendant's GBR was primarily based on a single bore		

action against the City or defending against the City's claims.

Plaintiff has suffered loss of time, attorney fees, and other expenditures totaling

an amount to be proven, because of Defendant's breach of professional duty and negligent

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misrepresentation.

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1	DEMAND FOR JURY TRIAL		
2	72.	Pursuant to Fed. R. Civ. P. 38, Plaintiff demands a trial by jury of all issues raised	
3	in this Complaint.		
4		PRAYER FOR RELIEF	
5	WHEREFORE, Plaintiff prays for judgment against Defendant as follows:		
6	1.	Judgment against Defendant in an amount to be determined at trial, but not less	
7	than \$2,100,000, plus prejudgment interest;		
8	2.	Plaintiff's costs and fees incurred herein;	
9	3.	Reasonable attorney fees under the common law claim of tort of another; and	
10	4.	Such other relief as the Court deems just and equitable.	
11	DAT	TED: June 5, 2015.	
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13		By: <u>/s/ Michael Willes</u> Paul W. Conable, OSB #975368	
14		Michael C. Willes, SBN 273145	
15	Attorneys for Apex Directional Drilling, LLC 035940/00014/6455533v5		
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